

LISTING OF CLAIMS

1-28. (Canceled)

29. (Previously Presented) A method of transferring digital data content from an information apparatus to a wireless output device by short range wireless communication, the information apparatus including a wireless communication unit for short range wireless communication with one or more output devices, an interface for interacting with a user, the wireless output device being at least one of an audio device, a projection device, and a display device, other than a printing device, the method comprising:

downloading at the information apparatus the digital data content from a server over a network to the information apparatus;

opening a wireless communication channel at the wireless communication unit of the information apparatus;

searching wirelessly over the wireless communication channel for one or more wireless output devices available for wireless connection;

receiving at the information apparatus over the wireless communication channel a device dependent attribute that corresponds to each wireless output device found in the wireless search, and includes at least one of a name, a device identity, a device type, a device address, a security code, and a device profile corresponding to each wireless device;

selecting at the information apparatus a wireless output device found discovered in the search based at least in part on the received device dependent attributes received over the wireless communication channel from each of the wireless output devices, the selected wireless output device being at least one of an audio device, a projection device, and a display device, other than a printing device;

establishing at the information apparatus a short range wireless connection with the selected wireless output device, the wireless connection not including an external print server being external to the information apparatus and the output device;

conforming at the information apparatus at least part of the digital data content into an output data, the output data being related to the digital data content and including a format, protocol, or language that is acceptable for transferring to the selected wireless output device for output; and

transferring the output data over the wireless connection to the selected wireless output device for output.

30. (Previously Presented) The method according to claim 29, further comprising, after selecting a wireless output device:

obtaining a security key from the user;

sending the security key over the wireless communication channel for authentication;

receiving over the wireless communication channel at least an indication related to a successful security key authentication; and

utilizing the authenticated security key to establish restricted wireless access to the selected wireless output device.

31. (Previously Presented) A method of restricted wireless transfer of digital content from a mobile wireless information apparatus to a wireless output device by short range wireless communication, the content being stored locally at the mobile wireless information apparatus or accessible over the Internet to the mobile wireless information apparatus or downloadable from a server over a network to the mobile wireless information apparatus, wherein the mobile wireless information apparatus includes a wireless communication unit for wireless communication with one or more wireless devices, and an interface for interacting with a user, the interface including at least a touch sensitive screen, the method comprising:

receiving over the interface at least an indication related to a selected content for output;

opening a wireless communication channel at the wireless communication unit of the information apparatus;

obtaining over the wireless communication channel at least one attribute corresponding to one or more wireless output device including one or more of a name, a device type, a device identity, a device address, and an device profile related to each of the wireless device;

selecting a wireless output device based at least in part on the received attributes obtained over the wireless communication channel;

obtaining a security key from the user for accessing the selected wireless output device at the mobile wireless information apparatus;

sending at the mobile wireless information apparatus the security key over the wireless communication channel for authenticating access of the mobile wireless information apparatus to the select wireless output device;

receiving over the wireless communication channel at least an indication related to a successful security key authentication, and in dependence of a successful security key authentication,

establishing a restricted wireless connection between the mobile wireless information apparatus and the selected wireless output device, conforming at the mobile wireless information apparatus at least part of the selected content into an output data, the output data being related to the selected content and including a format, protocol, or language that is acceptable for transferring to the selected wireless output device, and transferring the output data over the restricted wireless communication connection from the mobile wireless information apparatus to the selected wireless output device.

32. (Previously Presented) The method of claim 31 in which said security key comprises at least one of a user name, password, ID number, signatures, security keys (physical or digital), biometrics, fingerprints, and a voice.

33. (Previously Presented) The method of claim 31 in which the step of obtaining the said security key comprises inputting by the user or retrieving a key that was previously stored in the information apparatus.

34-38. (Cancelled)

39. (Previously Presented) The method according to claim 29 in which the wireless output device is an audio device.

40. (Previously Presented) The method according to claim 29 in which the information apparatus includes a desktop computer, a laptop computer, a networked computer, a palmtop computer, a hand-held computer, a personal digital assistant, an Internet enabled mobile phone, a smart phone, an Internet appliance, or a web pad.

41. (Previously Presented) The method according to claim 29 in which the information apparatus further includes a client application with one or more functionalities that include one or more of internet browsing, outputting content, content selection, content creation, and content editing.

42. (Previously Presented) The method of claim 29 in which conforming at the information apparatus at least part of the digital content into an output data includes using at least in part the said device dependent attribute received over the wireless communication channel from the selected wireless output device.

43. (Previously Presented) The method of claim 29 in which the wireless communication channel is compatible to a Bluetooth wireless protocol or one that is compatible to IEEE802.11 protocol.

44. (Previously Presented) The method of claim 29 in which the device profile includes information related to at least one of quality of service, billing, pricing, security, identification and compatibility associated with the wireless device.

45. (Previously Presented) The method of claim 31 further comprising discovering over the wireless communication channel one or more wireless output devices available for wireless connection.

46. (Previously Presented) The method of claim 31 in which conforming at the information apparatus at least part of the selected content into an output data includes using at least in part the said attribute received over the wireless communication channel.

47. (Previously Presented) The method according to claim 31 in which the wireless communication between the information apparatus and the output devices includes the information apparatus communicating with the output device via a wireless output controller associated with the wireless output device.

48. (Previously Presented) The method according to claim 31 in obtaining over the wireless communication channel at least one attribute includes obtaining over the wireless communication channel at least one attribute from a wireless output controller associated with one or more wireless output devices.

49. (Previously Presented) The method of claim 31 further including receiving over the wireless communication information relating to one or more of quality of service, billing, pricing, identification and compatibility associated with the wireless device.

50. (Previously Presented) A method of transferring digital audio or video content from an information apparatus to a wireless output device by short range wireless communication, the wireless output device being at least one of an audio device, a projection device and a display device, wherein the information apparatus includes a client application that enables user viewing or outputting of at least part of the digital audio or video content with the information apparatus, the information apparatus further including at least one wireless communication

unit for wireless communication with one or more wireless output device, the method comprising:

opening at the information apparatus a wireless communication channel;

searching wirelessly over the wireless communication channel for a wireless device that is available for wireless connection;

receiving over the wireless communication channel a device dependent attribute corresponding to each wireless device found in the wireless search and being one or more of a name, a device identity, a device type, a device address, an authentication information, and a device profile;

selecting a wireless output device found in the wireless search based at least in part on the received device dependent attributes over the wireless communication channel, the selected wireless output device being at least one of an audio device, a projection device, and a display device;

establishing a short range wireless connection between the information apparatus and the selected wireless output device, the wireless connection not including an external print server being external to the information apparatus and the output device;

conforming at the information apparatus at least part of the digital audio or video content into an audio or video output data, the audio or video output data being related to the audio or video content and including a format, protocol, or language that is acceptable for transferring to the selected output device; and

transferring the audio or video output data over the wireless connection from the information apparatus to the selected wireless output device for output.

51. (Previously Presented) The method according to claim 50 in which the information apparatus includes at least one of a desktop computer, a laptop computers, a networked computer, a palmtop computer, a hand-held computer, an Internet enabled mobile phone, a smart phone, an Internet appliance, and a web pad.

52. (Previously Presented) The method according to claim 50 in which the client application accesses the digital audio or video content with an internet browser that enables downloading of the digital audio content over the internet.

53. (Previously Presented) The method according to claim 50 in which the client application further includes audio or video content selection, creation or editing applications for selecting, creating or editing of the audio or video content at the information apparatus.

54. (Previously Presented) The method according to claim 50 in which the information apparatus further includes a memory component and the audio or video content is stored locally in the memory component of the information apparatus and the client application accesses the digital audio or video content locally for sending to the output device over the wireless communication channel.

55. (Previously Presented) The method according to claim 50, further comprising:

obtaining a security key;

sending the security key over the wireless communication channel for authentication;

receiving over the wireless communication channel at least an indication related to a successful security key authentication; and

utilizing the authenticated security key to establish restricted wireless access to the selected wireless output device.

56. (Previously Presented) The medium according to claim 59 further comprising software for obtaining an authentication information at the information apparatus for accessing the selected output wireless device, and software for sending at least part of the authentication information over the wireless communication channel for authenticating access to the select wireless output device.

57. (Previously Presented) The medium according to claim 59 in which the--software for conforming at the mobile phone information apparatus at least part of the content into an output data includes at least a compression operation.

58. (Previously Presented) The method according to claim 50 in which conforming at the information apparatus at least part of the digital audio or video content into an audio or video output data includes using at least in part the said device dependent attribute received over the wireless communication channel from the selected wireless output device.

59. (Previously Presented) A computer readable medium containing software for transferring digital data content from a mobile phone information apparatus to a wireless output device by short range wireless communication, the content being previously stored locally at the mobile phone information apparatus or downloaded from a server over a network to the mobile phone information apparatus, wherein the mobile phone information apparatus includes a wireless communication unit for wireless communication, an interface for interacting with a user, the medium comprising:

software for opening a wireless communication channel from the mobile phone information apparatus;

software for searching wirelessly over the wireless communication channel for a wireless device that is available for wireless connection;

software for receiving at the mobile phone information apparatus over the wireless communication channel a device dependent attribute corresponding to each wireless device found in the wireless search and being at least one of a name, a device identity, a device type, a device address number, a security code, and a device profile;

software for selecting a wireless output device found in the search based at least in part on the received attributes over the wireless communication

channel, the output device being at least one of a printing device, an audio device and a display device;

software for establishing a wireless connection between the mobile phone information apparatus and the selected wireless output device;

software for conforming at the mobile phone information apparatus at least part of the content into an output data, the output data being related to the content and including a format, protocol or language that is acceptable for transferring to the selected wireless output device; and

software for transferring the output data over the wireless connection from the information apparatus to the selected wireless output device for output.